

Lessons Learned From Hurricane Katrina

Although many record keepers were proactive in their attempts to protect records, no one foresaw the scale of Hurricane Katrina's devastation. Most attempts fell far short of the necessary measures. However, even modest efforts for disaster preparation helped records survive. At a recent conference, the National Archives and Records Administration (NARA) presented a lessons learned from Hurricane Katrina. From that presentation, the following are actions that could be undertaken by records managers to help protect records before and after a disaster.

Pre-Disaster

- Clear tops of desks of important papers - Stacks of working papers were scattered by the wind and rain and hard to locate. Many were totally destroyed and unable to be identified or restored. Placing working papers in desk drawers or file cabinets could have prevented some damage.
- Records should not be left sitting in loose stacks, but rather stored in file cabinets or desk drawers - Records stored in cabinets had less damage than those that were stored loosely. Even records in record boxes fared better than loose material or material in books. Record boxes are made of porous board stock and absorb some moisture, protecting the contents inside. (Of course, this wasn't true in either case if they were completely immersed under water.)
- Record boxes should never be stored on the floor – Record boxes that were stored stacked on the floor became waterlogged. Had record boxes been stored on lower shelves, they might have been above flood waters and the restoration may not have been needed.
- Record boxes should never be stored stacked one on top of another - If records are stored in archival boxes, they should be stored on shelves. When record boxes were in stacks on the floor and water levels rose, the bottom boxes became wet and collapsed. This caused the boxes on top to tumble to the floor and land in the flood water, leading to more damage.
- Vital records and copies of SF-135's should be kept off site at another location or stored on a remote server and accessible electronically – SF-135's or records holding storage lists were stored on site in paper form and destroyed with the rest of the records.
- Cover Computers with Plastic Bags - Records stored on computers were not accessible because the computers rusted from water damage and were inoperable.
- Consider Plans for Backup Generators - As the area was without electricity for a long period of time, the need for sustainable power was a concern. Consider developing plans for back-up generators. However, a standard generator may be insufficient to

power sensitive computer equipment needed in emergency communication. An evaluation should be included in the pre-event checklist. Any supplemental power supply would need to be tested and maintained regularly to insure operability during and after an emergency event.

Post-Disaster

- Seek Professional Advice and Help Immediately - Ask for NARA's assistance as soon as possible. NARA was a tremendous help to several agencies. However, procurements for assistance can take up to three or more months. Do not attempt to remove records from the area until you have consulted NARA and all personnel have been thoroughly briefed and trained.
- Arrangements should be made as soon as possible to have records removed from the disaster area – After Hurricane Katrina, Vacuum Freeze Drying was the method of choice for most restoration. Arrangements should be made as soon as possible to ship the packed materials immediately to vacuum freeze drying facilities.
- Every effort should be made to reduce high humidity and temperatures and vent the areas to prevent mold growth - In warm, humid weather, mold growth may be expected to appear in a water-damaged area within 48 hours. As soon as the water has receded or been pumped out, create any possible air flow through all affected areas by opening doors and windows. If electrical facilities are operational, use as many fans as possible to create a flow of air to blow humid air from the building.
- Don't use plastic storage boxes for temporary storage of wet records - Some agencies collected wet records and transferred them to large plastic storage boxes for temporary storage until restoration could begin. The plastic boxes and warm temperatures were a perfect breeding ground for mold.
- Records will need to be copied and the copies used as the working documents even after restoration because of the mold - Mold remained in most of the paper even after processing.
- Survey papers in aisles and walkways for potential records and move them to another location until restoration can begin - Aisles and walkways between stacks of records were strewn with wet, damaged records. Recovery teams that were not trained in records walked on these records and caused additional damage.
- Maintain emergency contact information that includes personal cell phones and e-mail addresses - Communication was a large challenge for the recovery teams. There was no electricity and no land-line telephone service. Disaster plans that include home phone numbers are useless when homes have been destroyed.
- Records in bound volumes must be taken care of quickly – The thick bindings of books collected moisture and expanded. When immersed in water, the major part of

all damage to bound volumes is caused by swelling from the water and takes place within the first few hours.

- Remove records from file cabinets as quickly as possible – Paper records in cabinets became swollen with water and prevented file cabinets from opening. File cabinets had to be pried open. Also, wooden file cabinets had become swollen from the water and humidity so that they could not be opened.